CARBOHYDRATE RESEARCH, VOL. 179 (1988)

AUTHOR INDEX

AHRENS, R., 223
ALBERSHEIM, P., 269
ALTMAN, E., 245
ANDERSON, L., 199
ANGYAL, S. J., 1
ASPINALL, G. O., 211
AUZANNEAU, F.-I., 125

BETANELI, V. I., 37
BEYNON, L. M., 419
BOCK, K., 87, 97
BRADE, H., 223, 289
BREG, J., 411
BRIMACOMBE, J. S., 21
BRISSON, J.-R., 233, 245
BRUKHANOVA, O. V., 37
BUGGE, B., 381

CHARON, D., 125
CHOAY, J., 163
CLASSON, B., 31
CONTRERAS, R. R., 411
CRAIG, S. A. S., 327
CUMMING, D. A., 369

DARVILL, A. G., 269
DASHUNIN, V. V., 51
DE JONGH-LEUVENINK, J., 289
DELL, A., 7
DI FABIO, J. L., 233
DMITRIEV, B. A., 51
DUCHAUSSOY, P., 163
DUTTON, G. G. S., 419

EATON, H. L., 393
EKIEL, I., 349

FERNANDEZ-BOLAÑOS GUZMAN, J., 97

GAREGG, P. J., 31
GOUSSAULT, Y., 381

HAKOMORI, S., 393
HANAI, N., 393
HELLERQVIST, C., 369
HELPAP, B., 173
HINDSGAUL, O., 137
HOFMAN, I. L., 51
HUCKERBY, T. N., 7

ICHIKAWA, H., 315
ISHIDO, Y., 77

JANN, B., 223
JANN, K., 223
JANSSON, P.-E., 359
JEANLOZ, R. W., 381
JENNINGS, H. J., 61
JOSELEAU, J.-P., 321

KABIR, A. K. M. S., 21
KACA, W., 289
KAMERLING, J. P., 411
KATZENELLENBOGEN, E., 349
KENNE, L., 359
KHONDO, L., 211
KINNEAR, J. A., 211
KNIREL, Y. A., 51
KOBAYASHI, K., 315
KOCHETKOV, N. K., 37, 51
KÖLL, P., 1

LEDERMAN, I., 163
LEVERY, S. B., 393
LINDH, I., 31
LORENTZEN, J. P., 173
LUNDT, I., 87

MANNERS, D. J., 327
MARAIS, M.-F., 321
MCDONALD, A. M. L., 327
MÉRIENNE, C., 125

NAKABAYASHI, S., 381
NALEWAY, J. J., 199
NIEDUSZYNSKI, I. A., 7
NIEMANN, H., 301
NORES, G. A., 393
NORRESTAM, R., 97

OTT, A. Ya., 37
OXLEY, D., 341

PAINTER, T. J., 259
PAROLIS, H., 301
PAROLIS, L. A. S., 301
PAULSEN, H., 173
PEDERSEN, C., 87
PERRY, M. B., 233, 245

PETITOU, M., 163
PIERCE, M., 137
POSZGAY, V., 61

RAETZ, C. R. H., 199
RIETSCHEL, E. T., 289
ROGERS, M. E., 7
ROMANOWSKA, E., 349

SAKAKIBARA, T., 77
SALYAN, M. E. K., 393
SANDERSON, P. N., 7
SCHUERCH, C., 315
SHASHKOV, A. S., 51
SHOREIBAH, M., 137
SINAŶ, P., 163
SINNWELL, V., 289
SRIVASTAVA, O. P., 137
STARK, J. R., 327
STEVENSON, T. T., 269
STIRM, S., 301
SUMITOMO, H., 315
SZABÓ, L., 125

THOMAS-OATES, J. E., 7
TOUSTER, O., 369

VERHOEF, J., 289
VLIEGENTHART, J. F. G., 411

WARREN, C. D., 381
WEHLER, T., 359
WILKINSON, S. G., 341

YAMAMOTO, A., 77

ZÄHRINGER, U., 289

CARBOHYDRATE RESEARCH, VOL. 179 (1988)

SUBJECT INDEX

N-Acetylglucosaminyltransferase-V, recognition of oligosaccharide substrates by, 137
Alkyl glycopyranuronates, synthesis of 1,2-*O*-cyanoethylidene derivatives of, by oxidation of the 6-trityl ethers of their hexose analogues, 37
4-Amino-4-deoxy-L-arabinose and 1,4-dideoxy-1,4-imino-L-arabinitol, a convenient synthesis of, 199
7-*O*-(2-Amino-2-deoxy-α-D-glycopyranosyl)-L-*glycero*-D-*manno*-heptose as a constituent of lipopolysaccharides of *E. coli* and *V. cholerae*, isolation and chemical analysis of, 289
1,6-Anhydrohexofuranoses, n.m.r. spectra of, 1
Antigen, synthesis of a di-, tri-, and tetrasaccharide unit of the Group B streptococcal common, 61

Base-catalysed rearrangement of some bromodeoxyheptonolactones, 87
Binding of heparin to antithrombin III, a chemical proof of the critical role played by a 3-sulfated 2-amino-2-deoxy-D-glucose residue in the, 163
Bromodeoxyheptonolactones, base-catalysed rearrangement of some, 87

Capsular polysaccharide of *Streptococcus pneumoniae*, synthesis of trisaccharide repeating units of, 173
Chemical proof of the critical role played by a 3-sulfated 2-amino-2-deoxy-D-glucose residue in the binding of heparin to antithrombin III, 163
Citrobacter O23-lipopolysaccharide, the structure of the O-specific polysaccharide chain from, 349
Control of depolymerisation during the preparation of reduced dialdehyde cellulose, 259
1,2-*O*-Cyanoethylidene derivatives of alkyl glycopyranuronates, synthesis of, by oxidation of the 6-trityl ethers of their hexose analogues, 37

3-Deoxy-D-*lyxo*-2-heptulosaric acid, a component of the plant cell-wall polysaccharide rhamnogalacturonan-II, 269
Dialdehyde cellulose, control of depolymerisation during the preparation of reduced, 259
1,4-Dideoxy-1,4-imino-L-arabinitol, a convenient synthesis of 4-amino-4-deoxy-L-arabinose and, 199
Dolichyl diphosphate tetrasaccharide, synthetic, as precursor of lipid-linked oligosaccharide diphosphates, 381

E. coli K26 capsular polysaccharide, structural studies of, using g.l.c.–c.i.-m.s., 419

Fast-atom bombardment mass-spectrometric strategies for sequencing sulphated oligosaccharides, 7
Furanosidic β-KDO residue, structure of the *Escherichia coli* capsular K74 polysaccharide containing, 223

Galactomannan from the reference strain for *Serratia marcescens* serogroup O4, structural studies of an acidic, 341
Glucuronic acid, identification of 4-*O*-[(*S*)-1-carboxyethyl]-D-, as a component of the *Klebsiella* serotype K22 capsular polysaccharide, 301
Glycogens, the iodine-staining properties and fine structure of some mammalian and invertebrate, 327
Glycosiduronic acid linkages in methylated *Khaya ivorensis* gum, cleavage of modified, using the hex-5-enose degradation, 211

Haemophilus influenzae type a capsular antigen, synthesis of *p*-trifluoroacetamidophenyl β-D-glucopyranoside 4-(D-ribit-5-yl phosphate) corresponding to the, 31
Haemophilus pleuropneumoniae serotype 3 (ATCC 27090) lipopolysaccharide, structure of the O-antigen polysaccharide of, 245
Hex-2-enopyranoside, reactions with sodium methoxide of methyl and phenyl 4,6-*O*-benzylidene-2,3-dideoxy-2-*C*-*p*-tolylsulfonyl-α-D-*erythro*-, 77
Hex-5-enose degradation, cleavage of modified glycosiduronic acid linkages in methylated *Khaya ivorensis* gum, using the, 211
Hexofuranoses, 1,6-anhydro-, n.m.r. spectra of, 1
Higher-carbon sugars, on the stereochemistry of osmium tetraoxide oxidations of allylic systems used in the synthesis of, 21

Identification of the primary structures of manno-oligosaccharides and glycopeptides, on the utility of ^{13}C-n.m.r. spectroscopy in the, 369
Iodine-straining properties and fine structure of some mammalian and invertebrate glycogens, 327

Isolation and chemical analysis of 7-*O*-(2-amino-2-deoxy-α-D-glucopyranosyl)-L-*glycero*-D-*manno*-heptose as a constituent of lipopolysaccharides of *E. coli* and *V. cholerae*, 289

Khaya ivorensis gum, cleavage of modified glycosiduronic acid linkages in methylated, using the hex-5-enose degradation, 211

Klebsiella serotype K22 capsular polysaccharide, determination of the primary structure of the, 301

Klebsiella serotype K48, the structural repeating-unit of the capsular polysaccharide from, 321

Lactones of 3-deoxy-D-*manno*-2-octulopyranosonic acid (KDO), synthesis of 1,5-, 125

Lipid-linked oligosaccharide diphosphates, biosynthesis from synthetic dolichyl diphosphate tetrasaccharide, 381

Lipopolysaccharide antigenic O-chain produced by *Salmonella carrau* (O: 6, 14, 24), structure of the major, 233

Lipopolysaccharides of *E. coli* and *V. cholerae*, isolation and chemical analysis of 7-*O*-(2-amino-2-deoxy-α-D-glucopyranosyl)-L-*glycero*-D-*manno*-heptose, as a constituent of, 289

Lyso-GM_3 (II^3Neu5Ac lactosyl sphingosine), de-*N*-acetyl-GM_3 (II^3NeuNH_2 lactosyl Cer), and related compounds, synthesis and characterization of, 393

Mammalian and invertebrate glycogens, the iodine-staining properties and fine structure of some, 327

Manno-oligosaccharides and glycopeptides, on the utility of ^{13}C-n.m.r. spectroscopy in the identification of the primary structures of, 369

Mass-spectrometric strategies for sequencing sulphated oligosaccharides, fast-atom-bombardment, 7

Methyl 3-*O*-[α-L(and D)-rhamnopyranosyl]maltoside derivatives, synthesis and conformational analysis of, 97

Methyl 4,6-*O*-benzylidene-2,3-dideoxy-2-*C*-*p*-tolylsulfonyl-α-D-*erythro*-hex-2-enopyranoside and its phenyl analogues, reactions with sodium methoxide of, 77

Methyl α-D-galactopyranosides, ^{1}H- and ^{13}C-n.m.r. spectroscopy of synthetic monosulphated, 411

Monosulphated methyl α-D-galactopyranosides, ^{1}H- and ^{13}C-n.m.r. spectroscopy of synthetic, 411

N.m.r. spectroscopy in the identification of the primary structures of manno-oligosaccharides and glycopeptides, on the utility of ^{13}C-, 369

N.m.r. spectroscopy of synthetic monosulphated methyl α-D-galactopyranosides, ^{1}H- and ^{13}C-, 411

N.m.r. study of some *Shigella flexneri* O-polysaccharides, a ^{13}C-, 359

Octulopyranosonic acid (KDO), synthesis of 1,5-lactones of 3-deoxy-D-*manno*-2-, 125

Oligosaccharide diphosphates, lipid-linked, biosynthesis from synthetic dolichyl diphosphate tetrasaccharide, 381

Oligosaccharide substrates, recognition of, by *N*-acetylglucosaminyltransferase-V, 137

Osmium tetraoxide oxidations of allylic systems used in the synthesis of higher-carbon sugars, on the stereochemistry of, 21

Polysaccharide chain from *Citrobacter* O23-lipopolysaccharide, the structure of the O-specific, 349

Polysaccharide chain of the *Shigella dysenteriae* type 7 lipopolysaccharide, structure of the O-specific, 51

Polysaccharide containing furanosidic β-KDO residues, structure of the *Escherichia coli* capsular K74, 223

Polysaccharide from *Klebsiella* serotype K48, the structural repeating-unit of the capsular, 321

Polysaccharide of *Haemophilus pleuropneumoniae* serotype 3 (ATCC 27090) lipopolysaccharide, structure of the O-antigen, 245

Polysaccharide rhamnogalacturonan-II, identification of 3-deoxy-D-*lyxo*-2-heptulosaric acid as a component of the plant cell-wall, 269

Polysaccharide, structural studies of *E. coli* K26 capsular, using g.l.c.–c.i.-m.s., 419

Polysaccharide, synthesis of a β-(1→6)-linked, *via* ring-opening polymerization with neighbouring-group participation, 315

Polysaccharides, a ^{13}C-n.m.r. study of some *Shigella flexneri* O-, 359

Preparation of reduced dialdehyde cellulose, control of depolymerisation during the, 259

Reactions of methyl 4,6-*O*-benzylidene-2,3-dideoxy-2-*C*-*p*-tolylsulfonyl-α-D-*erythro*-hex-2-enopyranoside and its phenyl analogue with sodium methoxide, 77

Rearrangement of some bromodeoxyheptonolactones, base-catalysed, 87

Recognition of oligosaccharide substrates by *N*-acetylglucosaminyltransferase-V, 137

Rhamnogalacturonan-II, identification of 3-deoxy-D-*lyxo*-2-heptulosaric acid as a component of the plant cell-wall polysaccharide, 269

Ring-opening polymerization with neighbouring-group participation, synthesis of a β-(1→6)-linked polysaccharide *via*, 315

Salmonella carrau (O: 6, 14, 24), structure of the major lipopolysaccharide antigenic O-chain produced by, 233
Serratia marcescens serogroup O4, structural studies of an acidic galactomannan from the reference strain for, 341
Shigella dysenteriae type 7 lipopolysaccharide, structure of the O-specific polysaccharide chain of the, 51
Shigella flexneri O-polysaccharides, a ^{13}C-n.m.r. study of some, 359
Stereochemistry of osmium tetraoxide oxidations of allylic systems used in the synthesis of higher-carbon sugars, 21
Streptococcal common antigen, synthesis of a di-, tri-, and tetra-saccharide unit of the Group B, 61
Streptococcus pneumoniae, synthesis of trisaccharide repeating units of the capsular polysaccharide of, 173
Structural repeating-unit of the capsular polysaccharide from *Klebsiella* serotype K48, 321
Structural studies of an acidic galactomannan from the reference strain for *Serratia marcescens* serogroup O4, 341
Structural studies of *E. coli* K26 capsular polysaccharide, using g.l.c.–c.i.-m.s. 419
Structure of *Klebsiella* serotype K22 capsular polysaccharide: another glycan containing 4-*O*-[(*S*)-1-carboxyethyl]-D-glucuronic acid, 301
Structure of the K74 antigen from *Escherichia coli* O44:K74:H18, a capsular polysaccharide containing furanosidic β-KDO residues, 223
Structure of the major lipopolysaccharide antigenic O-chain produced by *Salmonella carrau* (O:6, 14, 24), 233
Structure of the O-antigen polysaccharide of *Haemophilus pleuropneumoniae* serotype 3 (ATCC 27090) lipopolysaccharide, 245
Structure of the O-specific polysaccharide chain from *Citrobacter* O23-lipopolysaccharide, 349
Structure of the O-specific polysaccharide chain of the *Shigella dysenteriae* type 7 lipopolysaccharide, 51
3-Sulfated 2-amino-2-deoxy-D-glucose residue, a chemical proof of the critical role in the binding of heparin to antithrombin III played by a , 163
Sulphated oligosaccharides, fast-atom-bombardment mass-spectrometric strategies for sequencing, 7
Synthesis and characterization of lyso-GM_3 (II^3Neu5Ac lactosyl sphingosine), de-*N*-acetyl-GM_3(II^3NeuNH_2 lactosyl Cer), and related compounds, 393
Synthesis and conformational analysis of methyl 3-*O*-[α-L(and D)-rhamnopyranosyl]maltoside derivatives, 97
Synthesis of a di-, tri-, and tetra-saccharide unit of the Group B Streptococcal common antigen, 61
Synthesis of a β-(1→6)-linked polysaccharide *via* ring-opening polymerization with neighbouring-group participation, 315
Synthesis of 4-amino-4-deoxy-L-arabinose and 1,4-dideoxy-1,4-imino-L-arabinitol, a convenient, 199
Synthesis of 1,5-lactones of 3-deoxy-D-*manno*-2-octulopyranosonic acid (KDO), 125
Synthesis of 1,2-*O*-cyanoethylidene derivatives of alkyl glycopyranuronates by oxidation of the 6-trityl ethers of their hexose analogues, 37
Synthesis of *p*-trifluoroacetamidophenyl β-D-glucopyranoside 4-(D-ribit-5-yl phosphate) corresponding to the *Haemophilus influenzae* type a capsular antigen, 31

2,3,5-Tri-*O*-acetyl-1,6-anhydrohexofuranoses, ^{13}C-n.m.r. spectra of, 1
p-Trifluoroacetamidophenyl β-D-glucopyranoside 4-(D-ribit-5-yl phosphate) corresponding to the *Haemophilus influenzae* type a capsular antigen, synthesis of, 31
Trisaccharide having the central glucopyranose residue in the $^1C_4$ conformation, synthesis of a branched, 97
Trisaccharide repeating units of capsular polysaccharide of *Streptococcus pneumoniae*, synthesis of, 173